

App. No. 10/688147
Office Action Dated April 15, 2004
Amd. Dated July 14, 2004

Amendments to the Abstract:

Please replace the abstract starting at page 24, line 1 with the following abstract:

A magnetoresistive element includes a pair of magnetic layers sandwiching an intermediate layer, at least one of the magnetic layers includes an oxide ferrite having a plane orientation with a (100), (110) or (111) plane. The oxide can be formed by sputtering with an oxide target while applying a bias voltage to a substrate including a plane on which the oxide ferrite is to be formed so as to adjust the amount of oxygen supplied to the oxide ferrite from the target. One of the magnetic layers is a pinned magnetic layer, and the pinned magnetic layer includes at least one non-magnetic film and magnetic films sandwiching the non-magnetic film. The magnetic films can be coupled with one another by magnetostatic coupling or antiferromagnetic coupling, generating negative magnetic coupling. Magnetic shifts are reduced by generating negative coupling. This element also has an improved thermal resistance.